

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
24 December 2003 (24.12.2003)

PCT

(10) International Publication Number
WO 03/106093 A2(51) International Patent Classification⁷: B23K 1/015

(21) International Application Number: PCT/DK03/00393

(22) International Filing Date: 14 June 2003 (14.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

PA 2002 00906 14 June 2002 (14.06.2002) DK
PA 2003 00260 21 February 2003 (21.02.2003) DK(71) Applicant (for all designated States except US): VAPOUR
PHASE TECHNOLOGY ApS [DK/DK]; Sophus Bauditz Vej 41, DK-8230 Åbyhøj (DK).

(72) Inventor; and

(75) Inventor/Applicant (for US only): DOKKEDAHL, Lars,
G. [DK/DK]; Sophus Bauditz Vej 41, DK-8230 Åbyhøj
(DK).(74) Agent: PATRADE A/S; Fredens Torv 3A, DK-8000
Aarhus C (DK).

(81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

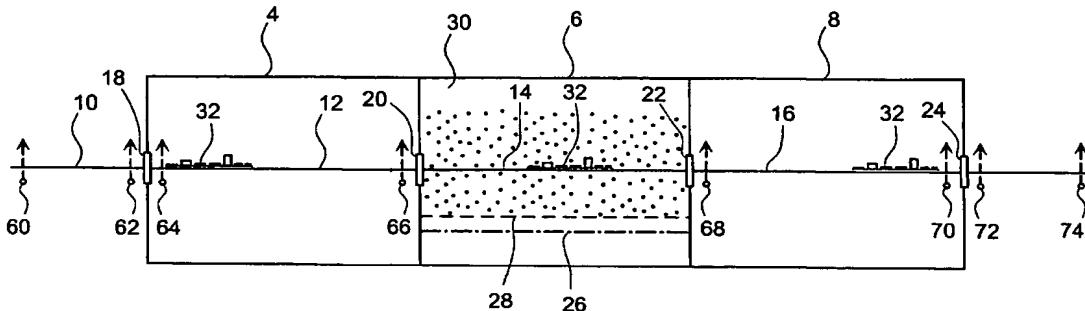
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR VAPOUR PHASE SOLDERING



WO 03/106093 A2

(57) Abstract: The present invention concerns a method and an apparatus for performing soldering of items that are applied a soldering agent, where the soldering apparatus includes at least one soldering zone, where the soldering zone include means for generating vapour, the apparatus being adapted to heat the items to be soldered to a temperature required for soldering by condensing the vapour. Further the invention relates to a method and an apparatus for flux deposition connected to a soldering machine, which soldering machine comprises a solder heating medium evaporated by heating means forming a vapour that heats elements to be soldered by heat transfer and by condensation, which apparatus comprises means for condensation, of a vapour containing flux where pumping means circulate vapor containing flux through the condensation means, where the condensation means comprises heat exchangers for cooling the vapour for flux condensation.